

## ABSTRACT

A transition metal complex having 2,2'-bis[bis(3,5-di-  
tert-butyl-4-methoxyphenyl)phosphino]-1,1'-binaphthyl as a  
ligand. The presence of the transition metal complex in  
5 the reaction system of an asymmetric reaction system allows  
the preparation of an objective compound having an  
objective absolute configuration with improved efficiency.